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DESCRIPTIONS OF SIX NEW NORTH AMERICAN  
GROUND SQUIRRELS.

BY ARTHUR H. HOWELL.

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A revision of the North American ground squirrels, now in progress, has revealed a number of new races, which are here briefly described in advance of a more formal paper.

*Citellus townsendii brunneus*, subsp. nov.

IDAHO SPOTTED GROUND SQUIRREL.

*Type*.—Female adult, skin and skull No. 201,963, U. S. National Museum (Biological Survey collection); collected at New Meadows, Adams County, Idaho, July 11, 1913, by L. E. Wyman; original number 178.

*Subspecific characters*.—Similar to *Citellus t. townsendii*, but color of upperparts more brownish (less grayish), and the dorsal spots smaller; cinnamon patch on face darker and more extensive; ears much larger, raised conspicuously above the crown; tail darker above; skull averaging larger and relatively broader.

*Measurements*.—*Type*: Total length, 224; tail vertebrae, 61; hind foot, 32. *Skull*.—Average of 4 adult males from Weiser and Midvale, Idaho: Greatest length, 40.4 (39.8-40.8); zygomatic breadth, 25.5 (24.9-26.1); breadth of cranium, 18.4 (18.3-18.5); least interorbital breadth, 8.4 (7.5-9.2); least postorbital breadth, 10.8 (10.4-11.6); length of nasals, 15 (14.6-16.1); maxillary tooth row, 8.5 (8.4-8.8). *Adult female* (type): 38.2; 24; 17.2; 8.1; 9.5; 13.4; 7.5.

*Range*.—West-central Idaho; specimens examined from Weiser, Midvale, Goodrich, Van Wyck, and New Meadows.

*Citellus elegans nevadensis*, subsp. nov.

*Type*.—Female adult, skin and skull, No. 156,788, U. S. National Museum (Biological Survey collection); collected at Paradise, Humboldt County, Nevada, March 3, 1908, by Stanley E. Piper; original number 112.

*Subspecific characters*.—Similar to *Citellus e. elegans*, but larger, with longer tail and hind foot; upperparts averaging more grayish (less brownish) especially on head and shoulders; underparts darker buff; skull larger, but postorbital breadth less.

*Measurements.*—*Type*: Total length, 337; tail vertebrae, 100; hind foot, 47. Average of 9 adults from Ruby Valley and Skelton, Nevada, and McDermitt, Oregon: Total length, 291.1 (270–307); tail vertebrae, 88.1 (76–100); hind foot, 46.1 (42–48). *Skull.*—Average of 5 adults (3 males, 2 females) from Paradise and Metropolis, Nevada: Greatest length, 47.6 (44.7–48.6); zygomatic breadth, 31.5 (29.9–32.4); breadth of cranium, 21.1 (19.8–21.7); least interorbital breadth, 10.1 (9.2–11.6); least postorbital breadth, 10.8 (10.4–11.5); length of nasals, 17.7 (17–18.6); maxillary tooth row, 9.7 (9.3–10.3). *Skull of type*: 48.6; 32.2; 21.4; —; 10.5; 18.6; 10.3.

*Range.*—Northeastern Nevada and southeastern Oregon; specimen examined from McDermitt and head of Quinn River, Oregon; Paradise Valley, Mountain City, Metropolis, Elko, Skelton, and Ruby Valley, Nevada.

***Citellus columbianus ruficaudus*, subsp. nov.**

BLUE MOUNTAINS GROUND SQUIRREL.

*Type.*—Female adult, skin and skull, No. 231,942, U. S. National Museum (Biological Survey collection); collected at Wallowa Lake, Wallowa County, Oregon; by George G. Cantwell; original number 1093.

*Subspecific characters.*—Similar to *Citellus c. columbianus*, but sides of face and usually the throat a deeper shade of tawny; legs and feet darker; upper side of tail tawny (instead of gray); hind feet and skull larger.

*Measurements.*—Average of 10 adults (8 males, 2 females) from Wallowa Mountains, Enterprise, Elgin, and Bourne, Oregon: Total length, 369.6 (340–410); tail vertebrae, 100.7 (80–115); hind foot, 54.2 (51–58). *Skull.*—Average of 8 males from same localities: Greatest length, 54.2 (51.5–57); palatal length, 26.6 (24.5–28); zygomatic breadth, 34.1 (33.2–35.6); breadth of cranium, 21.9 (21.5–22.4); least interorbital breadth, 12.4 (11.1–14.3); least postorbital breadth, 11.9 (10.5–12.6); length of nasals 19.8 (18.8–20.3); maxillary tooth row, 11.4 (10.5–12.4). *Skull of type* (♀) 52.8; 25.5; 34.1; 21.7; 13; 12.2; 19.1; 11.

*Range.*—The Blue Mountain region of northeastern Oregon and southeastern Washington. Specimens have been examined from the following localities:

*Washington*: Anatone; Blue Mountains, 20–30 miles southeast of Dayton.  
*Oregon*: Austin; Anthony; Bourne; Cornucopia; Dixie Butte; Elgin; Enterprise; Meacham; Wallowa Lake.

***Citellus pilosoma pallescens*, subsp. nov.**

*Type.*—Male adult, skin and skull, No. 79,535, U. S. National Museum (Biological Survey collection); collected at La Ventura, Coahuila, Mexico, August 10, 1896, by E. W. Nelson and E. A. Goldman; original number, 10,016.

*Subspecific characters.*—Similar to *Citellus s. pilosoma* (as represented by specimens from Durango), but paler; skull smaller, with shorter, broader rostrum. Compared with *Citellus s. canescens*, of Arizona: Size larger; tail

longer, with more black on distal half; dorsal spotting finer; skull larger, with narrower rostrum.

*Description of type.*—Upperparts wood brown (of Ridgway, 1912), finely speckled, chiefly on hinder back, with white; tail above, light pinkish cinnamon on proximal half, the distal half bordered with fuscous-black, and edged with buffy white; tail beneath, pinkish buff, bordered with fuscous-black and buffy white; underparts white.

*Measurements.*—Average of 12 adults from the type locality: Total length, 242.6 (232–253); tail vertebrae, 84.4 (76–92); hind foot, 35.7 (34.5–37). *Skull.*—Average of 10 adults from type locality: Greatest length, 40.1 (38.9–41.1); zygomatic breadth, 23.8 (22.9–24.5); breadth of cranium, 18.6 (18.2–19); interorbital breadth, 8.4 (7.8–8.9); least post-orbital breadth, 14 (12.8–15.1); length of nasals, 13.6 (13–14.5); maxillary tooth row, 7.5 (7.1–8.1).

*Remarks.*—Before undertaking further subdivision of this group, it was found necessary to identify the typical form, named without indication of its locality. Fortunately, the original specimens forming the basis of the description of *spilosoma* are still in the British Museum collection, and with the kind assistance of Mr. Oldfield Thomas, I have been able to obtain direct comparison of certain specimens in the Biological Survey collection with these types. Typical *spilosoma* is found to range from Durango City southward to Aguas Calientes, whereas the present form occupies the plains of north-central Mexico, from southern Chihuahua (Santa Rosalia) southward to San Luis Potosi and eastward to southern Nuevo Leon (Doctor Arroyo).

***Citellus tridecemlineatus arenicola*, subsp. nov.**

*Type.*—Male adult, No. 87,686, U. S. National Museum (Biological Survey collection); collected April 22, 1897, at Pendennis, Kansas, by J. Alden Loring; original number 3988.

*Subspecific characters.*—Similar to *Citellus t. tridecemlineatus*, but smaller and paler, the dark dorsal stripes snuff brown (instead of sepia); similar also to *C. t. texensis*, but smaller and much paler.

*Measurements.*—Average of 8 adults (4 males, 4 females) from type locality: Total length, 238 (214–295); tail vertebrae, 77.7 (71–83); hind foot, 32.2 (31–34). *Skull.*—Average of 4 adult males from type locality: Greatest length, 38.3 (37.3–39); palatal length, 17.7 (17–18.5); zygomatic breadth, 23 (22.2–23.6); breadth of cranium, 17.1 (16.8–17.4); least inter-orbital breadth, 11.5 (10.8–11.8); length of nasals, 13.5 (12.9–13.9); maxillary tooth row, 6.8 (6.5–7).

*Range.*—Southwestern Kansas, extreme eastern Colorado, northwestern Texas, western Oklahoma, and eastern New Mexico. Specimens have been examined from the following localities:

*Colorado:* Eureka Hill, Cheyenne County; Leroy; Monon, Baca County; Springfield.

*Kansas:* Oakley; Pendennis.

*Oklahoma:* Woodward.

*Texas:* Lipscomb; Lubbock; Mobeetie; Texline; Washburn.

*New Mexico:* Cabra Springs; Clayton; Loveless Lake, Lincoln County; Roswell; Tucumcari.

***Citellus tridecemlineatus monticola*, subsp. nov.**

*Type.*—Male adult, skin and skull, No. 209,255, U. S. National Museum (Biological Survey collection); collected June 15, 1915, at Marsh Lake,<sup>1</sup> White Mountains, Arizona (9,000 feet altitude), by Edward A. Goldman; original number 22,616.

*Subspecific characters.*—Similar to *Citellus t. alleni* (of Wyoming), but upperparts chestnut-brown instead of sepia and underside of tail more reddish; similar to *Citellus t. parvus*, but larger; coloration of upperparts and underside of tail darker; underparts more buffy. Compared with *hollisteri*: Upperparts paler, the dorsal stripes more whitish (less buffy); and underside of tail more reddish.

*Description of type.*—Ground color of upperparts chestnut-brown; light stripes and spots creamy white; front feet pinkish buff; hind feet cartridge buff, the thighs mikado brown; tail above, pinkish cinnamon on proximal third, the remainder fuscous-black, broadly edged with cartridge buff; tail beneath, russet, bordered with fuscous-black and tipped with cartridge buff; underparts and lower sides cartridge buff.

*Range.*—Known only from the type locality—a plateau at an elevation of about 9,000 feet in the White Mountains, Arizona. Specimens from Springerville, at the base of the mountains, are intermediate between *monticola* and *parvus*.

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<sup>1</sup>Also called Big Lake.